

**Technical Direction**  
**Technical Support for Water Quality**  
**Monitoring in Kentucky Tributaries to the Tug Fork River for**  
**Ionic Toxicity TMDL Development**

Date: 5/21/2019      Contract #: EP-C-17-046      Task Order #: 68HERC19F0025

Purpose: The purpose of this technical direction is to provide more detail to the Task 2: Water Quality Monitoring in Kentucky Tributaries to the Tug Fork River & Task 3: Quality Assurance Reporting

- Total of ten (10) monitoring events to occur over ten (10) months
  - Monitoring stations will be confirmed with WVDEP and EPA prior to the start of monitoring.
  - EPA conferred with WVDEP and it is important for monitoring to occur during all seasons and in different flow regimes (low flow vs high flow) as well as during leaf-on vs leaf-off.
  - 10 monitoring events should occur during the following:
    - Spring – high and low flow
    - Summer – high and low flow
    - Fall – high and low flow
    - Winter – high and low flow
    - Special emphasis to monitoring during leaf-on and leaf-off conditions.
  - Period of performance for this task order is through 5/31/2020 so spring monitoring could occur in early spring 2020 if needed
  - Finalized QAPP signed on 5/20/2019 should be used for monitoring.
- Flow measurement alternative approaches during dangerous conditions
  - Do not measure flow during dangerous conditions.
  - Document flow at USGS and/or NWS gage stations in nearby tributaries that could be used to approximate an estimated flow for monitoring station.
- Protocol for working with WVDEP to download laboratory data from LIMS and send to EPA
  - Tetra Tech is using PACE labs which has developed a LIMS system with WVDEP.
  - PACE provides lab results (spreadsheet) to WVDEP with a cc to Tetra Tech.
  - WVDEP will add field monitoring info and upload to their database (WABBASE).
  - WVDEP needs copies of the field monitoring forms used during monitoring events to supplement the lab data.
  - Tetra Tech will deliver data and field monitoring forms to EPA as attachments to the monthly progress report.
  - WVDEP will document that the sampling data has been successfully assimilated into WABBASE at the end of the project.
- Quality Assurance Reporting
  - Include Monthly Statements of Quality Assurance Progress within Monthly Progress Reports sent with invoices
  - Send Quality Assurance Report with synopsis of all monthly statements at the end of Task

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